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| APPLICATION NO.        | F                    | ILING DATE    | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |  |
|------------------------|----------------------|---------------|-------------------------|---------------------|------------------|--|
| 09/695,323             | 9/695,323 10/25/2000 |               | Shinya Kubo             | 11-307563US         | 1206             |  |
| 30743                  | 7590                 | 02/25/2003    |                         |                     |                  |  |
|                        |                      | IS & CHRISTOF | EXAM                    | EXAMINER            |                  |  |
| 11491 SUN<br>SUITE 340 | SET HILL             | LS ROAD       | LEE, PATRICK J          |                     |                  |  |
| RESTON, V              | /A 20190             | )             |                         | A DELINIE           |                  |  |
|                        |                      |               |                         | ART UNIT            | PAPER NUMBER     |  |
|                        |                      |               |                         | 2878                |                  |  |
|                        |                      |               | DATE MAILED: 02/25/2003 |                     |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| ٠,  |   |   | A   | Application No.  |  | Applicant(s)   | 11            |  |  |
|---|---|---|---|--|--|--|---------------|--|--|
|   |   |   |   | 09/695,323   |  | KUBO ET AL.  |               |  |  |
|   | Offic   | Action Summary  | E   | xaminer  |  | Art Unit   |               |  |  |
|   |   |   |   | Patrick J. Lee   |  | 2878   |               |  |  |
| Period fo   |   | ING DATE of this commu  | nication appea  | rs on the cove   | sheet with the c   | orrespondence ad   | ldress        |  |  |
| THE - Exte after - If the - If NO - Failu - Any earn  | MAILING Descriptions of time in SIX (6) MONTH period for reply period for reply interest or reply withing ply received by | O STATUTORY PERIOD F<br>DATE OF THIS COMMUN<br>has be available under the provisions<br>as pecified above is less than thirty (3<br>by is specified above, the maximum is<br>in the set or extended period for reply<br>by the Office later than three months<br>adjustment. See 37 CFR 1.704(b). | IICATION.<br>s of 37 CFR 1.136(a<br>munication.<br>30) days, a reply wit<br>tatutory period will a<br>y will, by statute, cau | a). In no event, howe<br>thin the statutory min<br>apply and will expire<br>use the application to | ever, may a reply be tim<br>imum of thirty (30) days<br>SIX (6) MONTHS from to<br>become ABANDONED | ely filed will be considered timel he mailing date of this co (35 U.S.C. § 133). |               |  |  |
| Status  | _   | . ,   |   | 0000   |  |  |               |  |  |
| 1) 🖾  | •   | ive to communication(s) fi  |   |  |  |  |               |  |  |
| 2a)⊠  |   | on is <b>FINAL</b> .  | , <del></del>   | action is non-fi   |  |  |               |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims |   |   |   |  |  |  |               |  |  |
| •   |   |   | application   |  |  |  |               |  |  |
| , —   | • • •   |   |   | from consider  | ation  |  |               |  |  |
| 5)  | 4a) Of the above claim(s) is/are withdrawn from consideration.  |   |   |  |  |  |               |  |  |
| ,   | ☐ Claim(s) is/are allowed. ☑ Claim(s) <u>1-11</u> is/are rejected.  |   |   |  |  |  |               |  |  |
| •   |   | is/are objected to.   |   |  |  |  |               |  |  |
| •   |   | are subject to restrict   | ction and/or el   | lection require  | ment   |  |               |  |  |
| ,   | ion Papers  | •   | 011011 4114/01 01   | iootion roquiro  |  |  |               |  |  |
| 9)  | The specifi   | cation is objected to by th   | e Examiner.   |  |  |  |               |  |  |
| 10)   | The drawin  | g(s) filed on is/are:   | a) accepted   | d or b)  object  | ed to by the Exan  | niner.   |               |  |  |
|   | Applicant   | may not request that any ob   | jection to the dr   | rawing(s) be hel   | d in abeyance. Se  | e 37 CFR 1.85(a).  |               |  |  |
| 11)   | The propos  | ed drawing correction file  | d on is   | : a) 🔲 approve   | ed b) 🗌 disappro   | ved by the Examin  | er.           |  |  |
|   | If approve  | ed, corrected drawings are re   | equired in reply  | to this Office ac  | ion.   |  |               |  |  |
| 12) The oath or declaration is objected to by the Examiner.   |   |   |   |  |  |  |               |  |  |
| Priority ι  | ınder 35 U  | .S.C. §§ 119 and 120  |   |  |  |  |               |  |  |
| 13)⊠  | Acknowled   | dgment is made of a claim   | n for foreign pr  | riority under 35   | U.S.C. § 119(a)  | -(d) or (f).   |               |  |  |
| a)  | ⊠ All b)[   | ] Some * c) ☐ None of:  |   |  |  |  |               |  |  |
|   | 1. Certified copies of the priority documents have been received.   |   |   |  |  |  |               |  |  |
|   | 2. Certified copies of the priority documents have been received in Application No  |   |   |  |  |  |               |  |  |
| * 5   |   | ies of the certified copies<br>application from the Interrached detailed Office action  | national Burea  | iu (PCT Rule 1   | 7.2(a)).   |  | Stage         |  |  |
| 14) 🗌 A   | cknowledg   | ment is made of a claim f   | for domestic p  | riority under 3  | 5 U.S.C. § 119(e   | ) (to a provisional  | application). |  |  |
|   |   | anslation of the foreign langment is made of a claim  |   |  |  |  |               |  |  |
| مرادد   |   | -   | ·   |  | -  |  |               |  |  |
| 2) 🔲 Notic  | e of Draftsper  | es Cited (PTO-892)<br>son's Patent Drawing Review (F<br>sure Statement(s) (PTO-1449) F  |   |  |  | (PTO-413) Paper No(<br>atent Application (PT                                     |               |  |  |

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### **DETAILED ACTION**

#### Response to Amendment

1. This action is in response to Applicant's Amendment filed 1/24/2003.

#### Claim Objections

2. Claims 1 & 6-7 are objected to because of the following informalities: the drive signal does not directly illuminate the cold-cathode-tube light source; rather it causes the light source to illuminate when the document is read. Appropriate correction is required.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 4. Claims 1-2 & 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Nabeshima et al 6,330,083. Nabeshima et al disclose an image-reading device comprised of cold-cathode fluorescent tube lamp (215), photoelectric conversion element (6), temperature detection circuit (218A), and a control circuit (218B, 216, 217, 28). The device is used to compensate for the variation of light quantity based on ambient temperature and other factors (column 1, lines 12-17). The temperature detection circuit (218A) detects the ambient temperature of the cold-cathode-tube and in

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combination with the temperature control circuit (218B), sends that information to the CPU (28), which is then responsible for sending signals to the lighting control inverter (216). The lighting control inverter (216) changes the gain that is applied to lamp (215) (see column 6, lines 46-67). The Applicant's statements to the definition of "ambient temperature" are noted, but it is known that the claims as stated can be broadly interpreted to include the ambient temperature of the tube itself.

# Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 3-5 & 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nabeshima et al 6,330,083. With respect to claims 3-5 and 9-11, while Nabeshima et al do not explicitly state that the control circuit controls the voltage, applied time, or the frequency of the drive signal, it would have been obvious to one of ordinary skill in the art in order to change the level of illumination of the device.

## Allowable Subject Matter

7. Claim 6 is allowed.

8. The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 6, while the use of an impedance detector is known, modifying Nabeshima et al would have required the feedback control of the heater to be removed.

# Response to Arguments

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- 9. With respect to claim 1 and 7, the "ambient temperature" as stated in the claims can be interpreted broadly to be the ambient temperature of the tube itself.
- 10. With respect to claims 5 and 11, the applicant states that Nabeshima et al does not disclose the using frequency of a drive signal to control light output, but doing so is known and would have been obvious to one of ordinary skill as it provides for accurate adjustment of output levels.

#### Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tamura et al 4,463,284 teaches the control of luminous intensity of a cold cathode tube and provides a definition of ambient temperature.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Patrick J. Lee whose telephone number is (703) 305-

3871. The examiner can normally be reached on Monday through Friday, 8:00 am to

5:30 pm,.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone numbers

for the organization where this application or proceeding is assigned are (703) 746-9558

for regular communications and (703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 308-

1782.

Patrick J. Lee Examiner

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PSV-

February 20, 2003

DAVID PORTA

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800